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NEW APPROACHES TO THE ANALYSIS OF THE SECURITY ENVIRONMENT AND THEIR IMPORTANCE FOR SECURITY MANAGEMENT

Examination of security environment in many security papers and studies is focused primarily on analysis of external security environment of different countries. Analyzing the current security problems led us to the realization that the security environment is characterized by a systemic arrangement in which there are systems of lower and higher order. We want to demonstrate that to ensure safety of the reference object at a lower level (e.g., small social groups, individuals) it is important to evaluate the security environment of the lower order (i.e., at sub-regional, local and sub-local level). Defining and analyzing security environment at lower levels is a prerequisite for creating effective situational prevention strategies and for improving personal safety of citizens and their property.

Keywords: *Security environment, security situation, security management.*

1. Introduction

Whole range of factors affects safety of reference objects. These factors result from the characteristics and properties of the object of protection, but also from the environment in which the object exists.

The environment is generally characterized as a set of all conditions and influences in which the reference object is located and which are able to affect or alter the terms of existence of the object. This term is also referred to nearby or distant environment that directly or indirectly affect the reference object. The environment in which there are conditions for the existence and development of reference objects, their activities, relationships and interests determined primarily by safety, we have named **security environment** [1].

Analysis and evaluation of the factors of the security environment is the starting point for assessing safety of the reference object. The aim of the assessment of the security environment is to identify those factors that have the potential to change the security situation and the conditions of existence of the reference object. The scope of the analysis of the security environment depends on the size and nature of the reference object. Different scope of the analysis is required for studying security environment of a state, a different one for studying a small business object.

In this article we want to point out to the approaches of assessment of the security environment according to the concepts of security.

2. The security environment in the concept of Security Studies

Security Studies are defined as one of the branches of the subject of international relations; in the initial period of the existence of these studies their subject was a state and ensuring the safety of the state in an international environment. The reference object is the state, security means protecting the state from external threats, and the citizens of the country are safe as much as the state itself is safe. State centrism was evident for such interpretation of Security Studies and their priority was military security.

Disappearance of bipolarity has changed the nature of the factors that directly affect safety. Instead, the risk of conflict between the superpowers or independent states aroused a new threat to the safety of conflicts originating within the state itself. Security began to be associated with economic, environmental and information factors. Priority was given to the problems of group identities and the fragmentation of the international system, religious and ethnic conflicts; international organized crime and terrorism started to emerge significantly.

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The contents of Security Studies, which are based on a new understanding of security according to the representatives of so called "Copenhagen School" - B. Buzan, O. Waere and J.de Wilde, [2] is not just the military dimension of security; but these studies are focused also on non-military aspects of security. They study not just wars and their state actors, but research also non-state actors and non-military sources of danger, especially such resources which cannot clearly be identified. Nevertheless, the state remains the dominant reference object. In their views the *security environment is of subjective character and is being created by the actors* [2].

Analysis of the approach of the majority of Slovak security community [e.g. 3, 4 and 5] to defining the security environment shows the following:

- Security environment is perceived mainly as an external area of state (or a coalition of countries), defined by the need and possibility of implementing its interests.
- Security environment is identified only with the area of activity of state or non-state actors in international relations.
- Focus on external security environment does not allow identifying sources of potential threats in the internal environment of the state.
- Assessment of the security environment does not reflect the full spectrum of analytical planes and security sectors.

3. The security environment in the field of protection of persons and property

Discipline of protection of persons and property began to develop in 2001 at the Faculty of Special Engineering (since 1.9.2014 Faculty of Security Engineering). The object of the study was to ensure the safety of reference objects of different nature. The paradigm used for assessing the security environment within the concept of Security Studies did not suit. In the first theoretical studies, the security environment was related to subjects of protection which were production and non-production buildings, office buildings and private buildings (houses, flats, etc.). We characterized the security environment by allocating a certain space, relatively compact, size of which was given by spatial characteristics of the reference object. Depending on the needs of the security analysis, we expanded the spectrum of factors of the security environment.

In the first definitions we mainly emphasized the social factor of the security environment, then, we expanded the spectrum of natural and technogenous factors, as the reference object is always located in an environment that has its natural, social and technogenous component which affects its safety [6]. We also accepted the influence of mutual interactions of the factors of the environment [7]. The development of views on the structure and content of the security environment from the point view of safety management was completed by adopting a definition, stating that *security environment is a part of social, natural and technogenic environment, in which at a given time and space, arises an adequate security situation due to interactions of actors of the environment and environmental factors* [8].

4. Systematic approach to security environment

Security environment of the reference object is a complicated, complex system which consists of subsystems of social, natural and technical (technological) nature and their interactions. The complexity of the security environment as a system cannot be understood only in a relation to the number of subsystems and actors, but also in the context of variety, diversity, intensity and quality of interactions between the elements and factors.

Most complex subsystem in the security environment is social, societal, and human subsystem which represents human society. Human society itself is a system consisting of several societies that may be, or actually are, racially, culturally, religiously distinct [9]. In addition, each of these companies, representing a social space, there may exist social, political, economic or occupational stratification of its members [10]. Subsystem of natural origin, also called physical environment, has developed in a process of natural evolution of the world and without influence of human interventions. This environment is characterized in particular by geographical and geomorphologic arrangement, created by nature. It also includes human-altered, transformed environment, the part of the natural environment transformed by man according to his needs to ensure conditions of his life.

Subsystem of technogenic character is formed by a set of technical and technological production systems, operations, production and non-production infrastructure, transport infrastructure system of pipelines (oil, gas, water) and so on.

Security environment of the modern world is not an environment that could be defined as a *Newtonian, deterministic* system governed by deterministic laws which have a linear character of the processes leading to equilibrium. In Newtonian, deterministic system applies that after the occurrence of the phenomenon, event or process always follows its respective predictable results. Such a system operates under rules that are known or detectable. According to these rules, it is possible to identify the condition of the system in a chronological order. Based on this approach it would be sufficient to know the initial conditions so that we can predict the status of the situation in the security environment at any time in the future [11].

Processes in the real world and its security environment do not run according to deterministic models. It does not apply what existed in the past exists in the present and this will logically continue well into the future. Not always has one and the same phenomenon or event the same result. We cannot predict a future state only as a result of some sort of agreement, rules of action, as a result of processing the current conditions and values.

Real security environment exists in space and time, has its own internal dynamics and structure of actors, agents, their conditions and their interrelations. At each point of the trajectory of its development there may occur unexpected, dramatic phenomena which may cause deviations from the expected condition or trend of development. It's because the real security environment is characterized by instability which is due to the inability to control and manage all the processes that take place in it. Also, we cannot control and manage all the factors that these processes give rise to the security environment. Although we can fairly accurately describe the initial, starting conditions in the security environment, at any time of its development there may occur unpredictable, unexpected phenomena and processes (also called strategic shocks), unintended consequences of human action or element of coincidence, which will be a source of new quality condition security environment. As an example, we can see the impact of natural disasters with great destructive effect, the effects of large epidemics on human security and entire nations. In a social setting it could be poverty, social exclusion, which provokes violent conflicts, often with destructive effects on the natural environment and technogenous subsystems.

Real security environment exists in space and time, has its own internal dynamics structure of actors, agents, their conditions and their interrelations. Respecting the systemic arrangement of the security environment we come to the conclusion that there are real links between subsystems and actors in the security environment. Through these links there is transfer (diffusion) of influences and events from one subsystem to another, the mutual influence of conditions of the subsystems thus to influence of the security situation in the security environment of the reference object.

5. New classification of the security environment

The process of analysis of the security environment is systematic, purposeful, cyclic and continuous process of acquisition, collection and processing of information on the characteristics of the environment which can be a source of security risks and threats in relation to the protected object [11, 12 and 13]. This process is linked to objective and critical analysis of the structure of the security environment, factors of the security situation and the dynamics of its development.

5.1 Structure of security environment

The structure of the security environment will always be dependent on the nature and structure of the reference object. The more complex the size and structure of the reference object, the more extensive the geographical boundaries and structure of the environment will be. For each of the reference objects, we can identify and analyze **internal** and **external** security environment.

External security environment can be considered as the *space located outside the boundaries of objects of reference in which the factors occur, the processes are taking place, which have a decisive impact on the level of safety of particular reference object* [13]. The external security environment reference objects consist of a summary of **determinants and other factors** that may affect the existence and performance of the functions of the reference objects. External security environment can also be identified as:

- **closer** in which there is an imminent interaction between the reference object and the surroundings, i.e. that they interact or may interact,
- **remote** which consists of unbounded area in which exist, or there may occur factors with a significant impact on the performance of the functions and the existence of a reference object.

Internal security environment can be considered *a space located inside the boundaries of objects of the reference objects, in which there are factors, and ongoing processes that have or may have a decisive impact on the safety of particular reference object* [14]. We will identify and evaluate internal security environment when it is required by the character of the reference object – it means in the case of wider reference objects which themselves represent a more complex structure. Internal security environment may consist of:

- a set of individual objects / elements within the boundaries of the reference object,
- a summary of internal *social, natural and technogenic factors* that may affect the elements of an object in a given area and the reference object as a whole.

In terms of study of the security management it is growing importance of *local security environment* in urban areas.

Local security environment consists of a set of physical, economic, social, political and spiritual factors that affect the existence of the conditions of existence, creating and functioning of a reference object, it means individuals and social groups in a relatively small geographic area.

Nowadays towns and villages no longer constitute the basic unit for defining the local security environment. Streets, neighborhoods, or even city quarters can represent a local security environment. It is an environment in which the greater part of the interactions of the actors (reference objects) who live in it, or carry out their activities, is taking place. In this local environment can further differentiate the locations according to form of use of the site, according to historical or architectural characteristics or by socio-economic factors.

In each of these environments we can identify [15]:

- *Crime Generators* – is a place (space, object) which produces the criminal activity in a particular area, and, possibly, is a source of criminality for the area nearby. This is the place where the criminals meet, where they can find casinos, bars,

discotheques, places with widespread prostitution, etc. In such places, the conditions exist for general criminality, criminality connected with property, drugs or violence, or from these the criminals usually come from.

- *Crime Attractor* is a locality which attracts the offenders of criminal acts. Among these places or parts of the town are the ones like a department store, railway station, bus station, wealthy town districts, or distant places with a low density of population.
- *Crime Detractor* is a locality which distracts the offenders and prevents the criminal activity. These are the parts of the places where a sufficient control of all spaces has been secured, e.g., by the use of CCTV systems, by the presence of the police patrols, of security staff or sufficient lighting of those locations.

5.2 Factors of security situation

In relationship with providing security to critical infrastructure, Šimák has created a definition stating that *„the security environment is a variable complex of external and internal conditions, factors, relationships and activities which are determined by changes in state of security and their perception, cognition and survival is expressed in the conduct of social subjects „* [16].

When designing complex and systemic characteristics of the security environment for the need safety management we based the characteristics on the definition which states that the **security environment** is a comprehensive and concentrated expression of the **security situation** in a particular space at a particular time [17].

Security situation as a quantifier of quality of security environment is in the broadest sense the result of:

- interactions of relevant social security actors (individuals, social groups, safety authorities, institutions, etc.) among themselves,
- the impact of factors of the security environment on social actors in the security environment,
- operation of the security environment factors among themselves.

We distinguish two basic **types of factors** in the security environment, capable of producing an adequate security situation:

1. **Determining, conditioning factors** that fundamentally and in a long-term condition the state and development of security of reference objects. They are relatively stable, with a little change in their dynamics. Their impact and interaction is generally predictable, their evolution can be predicted with a certain credibility. They are mainly socio-political, legal, natural, climatic and urban factors.
2. **Dynamising factors** are the driving forces that have the potential to cause significant qualitative changes in the security of objects of critical infrastructure. The incidence and impact of these factors is less predictable, they might display and act with little warning time, unexpectedly and surprisingly. Due to the nature of their substance, we can identify the factors of:

- *social nature*, such as ethnic minority, religious, ethnical or political conflicts, terrorist attacks, crime, riots and other public disorder,
- *natural origin*, particularly earthquakes, volcanic eruptions, floods, landslides, avalanches, storms, whirlwinds etc.,
- *economic nature*, such as crisis, the sudden restriction of supply of raw materials and energy carriers, etc.,
- *technogenic nature*, manifesting as accidents, explosions, fires, technical equipment, spills of dangerous substances, etc.,
- *medical nature*, for example, endemics, epidemics (explosive or contact ones), or pandemics.

The result of the action of these factors can be accelerative if they have a positive impact on the existence and functioning of the object in the environment, or retarding, if they can cause a threat to the existence of the object carrying out its functions, or even cause its destruction.

It is clear that there is a causal relationship between determining and conditioning factors. Manifestations of some of dynamising factors may be caused directly by the nature of the underlying factors; on the other hand, manifestations of dynamising factors may induce changes in the character of their underlying factors. Thus, for example, cultural and historical factors may cause certain types of social conflicts, solution of these conflicts can be reflected in changes in political and legal factors.

Legal anomie can create conditions for certain types of crime and the need to address this problem can, in turn, cause changes in the legal system to ensure protection of the interests of citizens and society.

6. Conclusions

The role of security management is to minimize, or eliminate the risks associated with citizens‘ safety and protection of their health, lives and property. Due to a security entity, which is usually a physical or legal person, there is also relevant a spatial dimension of the security environment. It is mostly sectional, local security environment. Due to its structure and structure of its factors, the security environment is variable, uncertain, complex and ambiguous, and, therefore, will always be, to a greater or lesser extent, in a state of dynamic instability.

Security environment and especially the security situation are dynamic factors. Their changes are either predictable or unpredictable. Future conditions of security environment and situations within are not clear, hard-determined, or predestined.

Future states of the system can be considered vague, and of polyvariant nature.

The practice of safety management is affected by existing *conditioning factors*. When analyzing the security environment, we accept those limits resulting from these factors. If any of the above mentioned factors can act as a factor encouraging crime, it can be eliminated by implementation of social preventive strategy or other preventive measures (e. g. political, legal, organizational etc.).

From the point of view of safety management it is more difficult to eliminate the *effect of dynamising factors* that may act suddenly, unexpectedly, spontaneously. In such cases, the effectiveness is reached via a thorough and comprehensive analysis of the security environment, the identification of all relevant dynamising factors, characteristics of their potential impacts to forecast the development of the security situation. Variant-based study and processing of possible security situation allows then to design the structure of the system of physical protection (physical protection system) and build such a system of preventive measures which allow flexible adaption to the situation. This is true not only for symptoms of negative factors of a social nature, but also for factors of natural or technogenic nature.

The goal is to reach the ability to anticipate:

- *what may happen*, what security situation may arise,
- *why this may happen*, what or who may be causing changes in the security situation,
- *what needs to be done in order to prevent it from happening*, to prevent negative developments in the security situation,
- *what to do if this has already happened*, how to react to a dangerous situation.

Finding answers to these questions is the main contents of safety management activities, fulfilling its preventive function with respect to a particular security environment, interests and needs of the subject of security.

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